Table 1: Identify iron-in-water problem before seeking the best solution.

Problem	Cause	Treatment Options
Water is clear when exiting the tap but if allowed to sit, reddish brown particles begin to form and settle to the bottom.	Dissolved ferrous iron	For iron concentrations of less than 3mg/L, use phosphate compounds. Options 4,7 For iron concentrations less than 5 mg/L, use water softeners. Option 3,7
Red, brown, or black stains on laundry and/or plumbing fixtures.	Can be the result of any of the four different types of iron found in drinking water.	For concentrations up to 10 mg/L, use chemical oxidation with potassium permanganate or chlorine followed by filtration. Options 5,7 For concentrations less than 15 mg/L, use an oxidizing filter, such as manganese greensand. Options 6,7 For concentrations less than 25 mg/L, use pressure aeration. Options 2,7
Water contains red, brown, or black particles directly out of the tap.	Corrosion of plumbing system pipes. Or, ferrous iron that has been exposed to the atmosphere prior to exiting the tap.	Use a neutralizing filter, particle filter, or sand filter and increase the pH. Options 2 to 7
Reddish-brown or black sludge in toilet tanks or faucets.	Iron bacteria.	Shock treatment with chlorine, continuous feed of chlorine, followed by filtration. Options 5,7
Reddish-brown, black, or yellow color that does not settle out after a period of 24 hours.	Organic iron.	Chemical oxidation with chlorine followed by filtration. Options 5,7